

California Regional Water Quality Control Board  
Santa Ana Region

August 13, 2004

Statement of Basis

ITEM:

SUBJECT: Waste Discharge Requirements for United States Air Force, March Air Reserve Base, Storm Water Runoff, Riverside County, Order No. R8-2004-0033, NPDES No. CA 0111007

DISCUSSION:

Facility Description

The United States Air Force (discharger) owns and operates March Air Reserve Base (MARB). This facility of approximately 2,300 acre (the cantonment area) is located in Moreno Valley adjacent to the Escondido Freeway (Interstate 215) as shown on Attachment "A" of the order. The primary function of MARB is to house and maintain approximately 60 aircrafts used to support air-to-air refueling operations for the Department of Defense. The Base is used by the 452nd Air Mobility Wing to conduct air-refueling operations, to transport materials and troops, to provide training in support of aviation activities and other mission objectives of the Department of Defense. Other areas tributary to the cantonment area are now under the jurisdiction of the Air Force Real Property Agency and the March Joint Powers Authority and will not be directly affected by this Order.

Waste Discharges from the Facility

The operations at MARB require onsite storage and use of fuels (jet, gasoline, diesel), solvents, oils and other hazardous materials. These operations generate approximately 290,000 pounds per year of hazardous wastes that are stored at the site prior to proper disposal. These activities create a potential for groundwater and surface water contamination. Such contamination can occur from the accumulation of fuel and oil on runway and apron areas, accidental spills, and unauthorized waste discharges. Storm water runoff from the facility could also come in contact with these pollutants.

In 1981, the Department of Defense developed the Installation Restoration Program (IRP) to ensure compliance with hazardous waste regulations and to determine the potential sources of contamination. The IRP identified and ranked thirty onsite waste disposal and spill sites as potential sources of contamination at MARB. These investigations led to MARB's inclusion on the National Priority List (Superfund List). Further investigations and remedial activities have been conducted at the site and a number of sites are still undergoing remediation.

The sanitary wastes generated at the site are treated at the sewage treatment plant, which is regulated under Regional Board Order No. 03-0133. The reclaimed water from the treatment plant is used at the Riverside National Cemetery and at MARB's Golf Course and the reclaimed water use is regulated under the same permit.

## Storm Water Runoff

**Staff Report** - Order No. R8-2004-0033, NPDES No. CA 0111007

This order regulates the discharge of storm water from the site. There are four major storm water discharge points from MARB, as indicated on Attachment "A" of the order.

*Discharge Serial No. 001:*

The tributary area to Discharge Serial No. 001 includes runoff from the former base housing area (known as Arnold Heights) west of the Escondido Freeway (Interstate 215) and north of Van Buren Boulevard and portions of the right-of-way of Interstate 215. Storm water runoff from the cantonment area includes drainage from maintenance hangers, fuel distribution facilities, the runway, taxiway, and aircraft parking apron surfaces where aircraft use, fueling, and maintenance activities occur, and the vegetated areas adjacent to paved aircraft usage areas. Runoff is conveyed to the east side of the base via a system of storm drain pipes and open channels that discharge to the Perris Valley Storm Drain. A large open basin functioning as an oil/water separator is sited adjacent to the open channel just upstream of the discharge point to the Perris Valley Storm Drain. Under low flow conditions, a low weir in the open channel diverts flow to the oil/water separator. A floating skimmer collects and pumps floating oil and grease into a holding tank for storage and proper disposal. Under high flow conditions, storm water flows over the weir and directly into the Perris Valley Storm Drain that is tributary to the San Jacinto River, Reach 3. In addition to storm water runoff, Discharge Serial No. 001 also receives point source discharge from water rinsate of aboveground piping and appurtenances associated with periodic preventive maintenance and inspection activities at fuel distribution facility 1270, and from testing and/or accidental activation of the fire suppression system at hangar 2303. These discharges typically do not reach Discharge Serial No. 001 and traverse off-base. This Order provides requirements for effective control of non-storm water discharges including inspection of both non-storm water discharges should they occur at Discharge Serial No. 001.

*Discharge Serial No. 002:*

Storm water runoff tributary to Discharge Serial No. 002 originates from the balance of the aircraft parking apron not tributary to Discharge Serial No. 001, including the maintenance hangers adjacent to Graeber Street and bounded by the Base Operations Tower. Storm water is ultimately conveyed eastward via a system of pipes and open channels that joins Heacock Channel in the vicinity of 8<sup>th</sup> Street and the base boundary. Heacock Channel is tributary to the Perris Valley Storm Drain that is tributary to the San Jacinto River, Reach 3.

*Discharge Serial No. 003:*

Storm water runoff tributary to Discharge Serial No. 003 originates from the runway and taxiways and the vegetated areas adjacent to the runway and taxiways. Runoff is conveyed, generally, by shallow swale, open channel or pipe culvert to the southeasterly corner of the Base, where it discharges to a ditch paralleling Heacock Avenue and eventually intersecting the Oleander Avenue Channel. The Oleander Avenue Channel is tributary to the Perris Valley Storm Drain that is tributary to the San Jacinto River, Reach 3.

## Storm Water Runoff

**Staff Report** - Order No. R8-2004-0033, NPDES No. CA 0111007*Discharge Serial No. 004:*

Storm water runoff tributary to Discharge Serial No. 004 originates from maintenance facilities, visitor lodging quarters, and administrative offices west of Travis Avenue and north of Graeber Street and Meyer Drive. Runoff is conveyed generally by pipe culvert to the open channel paralleling Meyer Drive. The open channel is tributary to the Heacock Channel that is tributary to the Perris Valley Storm Drain that in turn is tributary to the San Jacinto River, Reach 3.

Existing NPDES Permit for Storm Water Discharges

The discharge of storm water from the Base is currently regulated under Regional Board Order No. 99-6, NPDES No. CA 0111007. Order No. 99-6 expired on April 1, 2004. On October 7, 2003, the discharger submitted an NPDES permit renewal application.

Beneficial Uses of the Receiving Waters

The discharge of storm water from the Base is tributary to the San Jacinto River, Reach 3. The intermittent beneficial uses of San Jacinto River, Reach 3 include: agricultural supply, groundwater recharge, warm freshwater habitat, water contact recreation, non-contact water recreation and wildlife habitat.

The discharges overlie the Perris-North Groundwater Subbasin. The beneficial uses of this subbasin include municipal and domestic supply, agricultural, industrial process, and industrial service supply. The downstream portion of the Perris Valley Storm Drain overlies the Perris-South I and Perris-South II Groundwater Subbasins. Discharges to this storm drain can affect the beneficial uses of these two subbasins, which include municipal and domestic supply and agricultural supply.

Regulatory Basis for the Discharge Limitations

Section 402(p) of the Clean Water Act as amended by the Water Quality Act of 1987 and the related regulations published by the United States Environmental Protection Agency on November 16, 1990 (40 CFR Parts 122, 123 and 124) contain requirements for the discharge of storm water. The State Water Resources Control Board adopted a general permit for the discharge of storm water from industrial sites. The proposed order is consistent with these state and federal regulations.

The proposed order includes limitations for total suspended solids, oil and grease, pH, methylene blue active substances and toxicity.

The proposed requirements and discharge limitations contained in the order should be adequate to protect the beneficial uses of the waters of the region and the requirements under any TMDLs that are adopted.

The proposed limits in this permit are based on Best Available Technology (BAT), Best Professional Judgement (BPJ), the Basin Plan and the state and federal regulations.

RECOMMENDATION:

Adopt Order No. R8-2004-0033, NPDES No. CA 0111007, as presented.

In addition to the discharger, comments were solicited from the following agencies:

State Water Resources Control Board, Office of the Chief Counsel – Jorge Leon  
State Water Resources Control Board, Division of Water Quality – Jim Maughan  
U.S. Environmental Protection Agency, Permits Issuance Section - (W-5-1), Terry Oda  
Riverside County Flood Control and Water Conservation District – Jason Uhley  
U.S. Army District, Los Angeles, Corps of Engineers - Regulatory Branch  
Santa Ana River Dischargers Association - Joseph Zoba  
State Department of Health Services – San Diego  
State Department of Water Resources - Glendale  
Riverside County Environmental Health Department – Sam Martinez  
State Department of Fish and Game - Long Beach  
March Joint Powers Authority Golf Course  
Riverside National Cemetery  
Western Municipal Water District – Norm L. Thomas  
City of Moreno Valley - Kent Wegelin  
City of Perris – Michael Morales  
Orange County Water District - Nira Yamachika  
Santa Ana Watershed Project Authority – Eldon Horst  
Santa Ana River Dischargers Association - Joseph Zoba  
City of Riverside Planning Department – Sandy Caldwell  
Riverside County Environmental Health Department – Sam Martinez  
Elsinore Valley Municipal Water District - Julius Ma  
Canyon Lake Homeowner Association - Clint Warren  
Eastern Municipal Water District – Anthony J. Pack